



(4 channel ,
Panel mount)



(12 channels,
Rack structure)

**MODEL 831U-MULTIPLE INPUT SIGNAL ISOLATOR –
UNIVERSAL / CONFIGURABLE Multichannel type**

Introduction

Pantech's Model 831U is an extended version of its Single channel model 821U. In this 831U model, the user gets all the facilities of 821U but in multiples. Model 831U, is a multi-channel Signal Isolator with a dedicated set of input and output per channel. In universal input mode, the user can select any one of the below mentioned inputs, for each of the channel by front keys. The module is an ideal choice when fanning out of process signal is required. All these outputs are isolated from each other, input and power supply. All these outputs are also isolated from each other. This ensures isolation between various subsystems and protects the system from all grounding problems.

The high end programmed microcontroller allows the user to configure all the parameters of the instrument. All the calibrations, fine tuning of the output can be done without opening the instrument. All the types of inputs, acceptable by the instrument are mentioned further. The unique design of the module requires only one single positive barrier at the input from a two-wire transmitter for intrinsic safety and isolates the control room. The cold junction compensation is built in and up scale burn out is provided as standard features for thermocouple input ranges.

The model is equipped with a pmt. Display of resolution 4 digit for each of the channel. The instruments are also facilitated with internal transmitter power supply of 24 V DC, to power up two-wire transmitters.

Low drift precession components are used for long term accuracy of the instruments. All instruments undergo a burn-in for better reliability.

The instrument is available in different formats and sizes. Information regarding specification and size is given be

Specifications

Specifications

FOR EACH OF INDEPENDENT CHANNEL

Inputs per channel (max. n nos.)

- 1)Current, 4 – 20 mA DC/ 0 – 20 mA DC (-1999 to 9999)
 - 2)Voltage, 1 – 5V/0 – 10V (-1999 to 9999)
 - 3)RTD Pt 100 – 3 wire (-100.0 to 600.0)
 - 4)T/C Type J (-100 – 800)
 - 5)T/C Type K (0 – 1200)
 - 6)T/C Type R (0 – 1760)
 - 7)T/C Type S (0 – 1700)
 - 8)T/C Type T (-100 – 400)
 - 9)T/C Type B (450 to 1820)
 - 10)T/C Type E (-100 to 1000)
 - 11)T/C Type C
 - 12)Ohms-0-10K ohms (-1999 to 9999)
 - 13)mV DC
 - 14)UNIVERSAL type 1 – 1...8 of above
 - 15)UNIVERSAL type 2 – 1...13 of above
 - 16)0-1 / 0-5 Ampere
 - 17)Pulse train input. (open collector type) –
 - 18)10 to 10 V DC / -mV to mV DC (-1999to9999)
 - 19)RTD – Cu 53
 - 20)Special type of inputs of any V/Current/Resistance (However on factory confirmation only)
- Decimal point configurable for linear inputs
T/C temperature displays without decimal point

Input impedance

200 K for Voltage, mV & T/C inputs
upto 250 ohms for current inputs

Display resolution

4 digit (-1999 to 9999) Per channel
Display to show input PV

Display accuracy

+/- 0.1% of span

Corresponding outputs (equals to no. of inputs)

- 1)Isolated / Non Isolated 4 – 20 mA DC
- 2)Isolated / Non Isolated 0-10 V DC
- 3)Other types on factory confirmations

Analog output load capability

800 maximum for current outputs

Output fine tune

By front keys only

Output accuracy

+/- 0.1% of span

Serial output with open protocol

- 1)RS232 With modbus RTU protocol
 - 2)RS485 with modbus RTU protocol
- Note: Any other protocol on demand

Transmitter power

n*24 V DC for current inputs

Power supply

- 1)24 V DC
- 2)110 V AC, 50 Hz, +/- 10%
- 3)230 V AC, 50 Hz, +/- 10%
- 4)90-270 V AC, 50 Hz. – SMPS
- 5)Specials on factory confirmations

Security

Single level Password protected

Contact ratings

230 V AC, 5 Amps.

Power consumption

3 VA max.

Cold junction compensation

Built in for T/C input.

Ambient temperature

0 – 50 C.

Storage temperature

0 – 70 C.

Humidity

90% RH (non-condensing)

Enclosures

Weatherproof, Flameproof and all other standard types

Mounting

Panel / Wall / Field

Dimensions

Standard and Specials

*All config/calibration from front keys only

Following table describes the availability of several models with the company right now. A general preview is only presented to the user. The dimensional and display sizes are the relational virtues of each other and hence the user is always requested to clarify the specifications of instrument with the factory prior to placement of the order.

On confirmation with factory, changes of all types in all specifications is possible.



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Ordering Informations

(Below specs. Are PER CHANNEL)

Basic Model No. (Specified by first 3 digits)

831U-Microprocessor based Signal Isolator –
Multichannel -Fully configurable – Predefined / Universal

Enclosure / Mounting

(Specified by letter following 3 digits)

P-Weatherproof - Panel
R-Weatherproof -Din Rail
E-Weatherproof - Euro card
W-Weatherproof - Wall
F-Flame proof – Wall / Field
I-IP65 grades – Wall / Field
S-Specials

Input (Specified by first digit following the letter)

1-mA DC signal input
2-V/mV DC signal input
3-RTD type
4-Thermocouple
5-Resistances
U-UNIVERSAL1 type
V-UNIVERSAL2 type
S-Specials

No. of channels

X-represents no. of channels

Power Option (Specified by the second digit)

1-24 V DC
2-110 V AC
3-230 V AC
4-90-270 V AC – SMPS
S-SPECIALS

No. of outputs per channeloption

(Specified by the third digit)

1-1 no. of output
2-2 no. of output
3-3 no. of output
4-4 no. of output

Type of Analog O/P Option

(Specified by the fourth digit)

1-mA/V DC isolated
2-mA/V DC non-isolated
3-Any other type of outputs

Bargraph Option (Specified by next digit)

0-none / NA
1-Yes

Communication output

0-None
1-YES

Note : It is possible that each of the channel is assigned a different input type, and so is output. The unique high end microprocessor based program allows the user to have all type of configurable options – both at the input and output.



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